

### **Remarks**

Currently, claims 25-31 and 33-52 remain pending in the present application, including independent claims 25, 37, and 46. For example, independent claim 25 is generally directed to an antimicrobially-treated composite fabric comprising a nonwoven continuous filament substrate hydraulically entangled with pulp fibers. The pulp fibers comprise between about 60% to about 90% by weight of said composite fabric. Greater than about 90% of the pulp fibers present within the composite fabric are covalently bonded to an organosilicone antimicrobial agent.

In the Office Action, independent claims 25, 37, and 46 were rejected under 35 U.S. C. §103(a) in view of U.S. Pat. No. 4,929,498 to Suskind, et al. According to Suskind, et al., nonwoven fabrics, such as airlaid, wetlaid, and hydroentangled, are envisioned whereby a portion (for example, from about 10-50%) of the normal pulp charge is replaced by the antibacterially-modified pulp. (Col 2, ll. 16-20). Specifically, from 10% through 50%, preferably from 15% through 25%, of the fibers used to make the web will be those that have been pre-treated with the antimicrobial. (Col 3, ll. 36-38). However, Suskind, et al. completely fails to teach or suggest certain limitations of independent claims 25, 37, and 46.

First, there is simply no teaching or disclosure in Suskind, et al. to hydraulically entangle a nonwoven continuous filament substrate with pulp fibers such that the pulp fibers comprise between about 60% and about 90% by weight of the resulting composite fabric. This particular weight percentage is not simply a design choice, but instead helps provide the fabric with the desired antimicrobial effectiveness and water absorption properties. Applicants note that in order to establish *prima facie*

obviousness, all of the claimed limitations must be taught or suggested in the prior art. See, e.g., MPEP § 2143.03. As such, Applicants respectfully submit that independent claims 25, 37, and 46 are not obvious in view of Suskind, et al.

Second, Suskind, et al. teaches replacing from 10% to 50% of the normal pulp charge used in forming a web with antibacterially-modified pulp. The Office Action states that Suskind, et al. teaches that the microorganism killing does not change considerably if more antimicrobial agent (than 10% to 50% of treated pulp) is used. Thus, the Office Action concludes that this indicates that one could use more, but the microorganism killing would not increase. In fact, Suskind, et al. discloses a “Comparative Example” having 100% of its pulp fibers treated, which has the same killing ratio of their webs having 10% to 50% of the pulp treated.

This observation actually supports Applicants’ argument in the present case. Because Suskind, et al. discloses that there is no benefit to increasing the amount of treated pulp fibers, no motivation or suggestion exists in Suskind, et al. to use a greater ratio of treated pulp fibers, and the hydraulically entangle them into a nonwoven continuous filament substrate. As such, Applicants respectfully submit that one of ordinary skill in the art would not be motivated to bond greater than about 90% of the pulp fibers to an organosilicone antimicrobial agent.

Thus, in order to reject independent claims 25, 37, and 46, the Office Action apparently attempts to modify the web of the “Comparative Example” of Suskind, et al. by hydraulically entangling its treated fibers with a nonwoven continuous filament substrate to form a composite fabric comprising from about 60% to about 90% by weight pulp fibers, to achieve the limitations of independent claims 25, 37, and 46.

However, no motivation or suggestion exists to hydraulically entangle this Comparative Example with a continuous filament substrate such that the treated pulp fibers comprise from about 60% to about 90% of the resulting composite web. As discussed above, Suskind, et al. does not teach or suggest hydraulically entangling pulp fibers into a continuous filament substrate such that the treated pulp fibers comprise from about 60% to about 90% of the resulting composite web.

Applicants respectfully submit that when viewed as a whole, one of ordinary skill in the art would not use the web of the "Comparative Example," but rather a web having from only from 10% to 50% of the normal pulp charge used in forming a web with antibacterially-modified pulp (which is the web Suskind, et al. primarily teaches). Thus, no motivation exists to hydraulically entangle a continuous filament substrate with pulp fibers, wherein greater than about 90% of the pulp fibers are derived from antimicrobial-treated cellulosic fibrous material. In fact, Suskind, et al. actually teaches away from using such a high percentage of treated fibrous material by repeatedly teaching that only 10% to 50% of the fibrous material is treated. As such, Applicants submit that independent claims 25, 37 and 46 are patentable over Suskind, et al., either alone or in any combination.

Third, Applicants respectfully submit that any motivation to hydraulically entangle the web of Suskind, et al.'s Comparative Example with a continuous filament substrate improperly stems from improper hindsight analysis of the present Application.

According to the present specification, the associative bonds formed between the antimicrobial agent and the pulp fibers are not substantially broken by the mechanical forces of the hydraulic entangling process. Pg. 20, ll. 22-25. As such, independent

claims 25, 37, and 46 require that pulp fibers are covalently bonded to the antimicrobial agent. No teaching or suggestion exists in Suskind, et al. that any such bond would, or even could, survive the hydraulically entangling process.

Not only do the wipers of Suskind, et al. fail to satisfy or suggest the limitations of claims 25, 37, and 46, such wipers are exactly the type that the present invention was designed to overcome. In particular, the main problem with the wipers of Suskind, et al., as addressed in the "Background of the Invention" section of the present application, is that they tend to provide inadequate microbial kill percentage. Pg. 1, line 26 – pg. 2, line 3. Applicants point out that the wipers disclosed in the present application can achieve substantially higher bacteria reduction percentages, such as 97% or greater. See, e.g. Tables 1 and 2.

Thus, for at least the reasons set forth above, Applicants respectfully submit that independent claims 25, 37, and 46 are not obvious in view of the above-cited reference. Applicants also respectfully submit that at least for the reasons indicated above relating to corresponding independent claims 25, 37, and 46, the corresponding dependent claims are not anticipated by the reference cited. However, Applicants also note that the patentability of the dependent claims does not necessarily hinge on the patentability of independent claims 25, 37, and 46. In particular, some or all of these claims may possess features that are independently patentable, regardless of the patentability of claims 25, 37, and 46.

It is believed that the present application is in complete condition for allowance and favorable action, therefore, is respectfully requested. Examiner Fortuna is invited


and encouraged to telephone the undersigned, however, should any issues remain after consideration of this Amendment.

Please charge any additional fees required by this Amendment to Deposit Account No. 04-1403.

Respectfully requested,

DORITY & MANNING, P.A.

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